

REMARKS

This amendment is responsive to the Final Office Action of February 19, 2008. Reconsideration and allowance of claims 1-16 are requested.

The Office Action

Claims 1-5 and 10-16 stand rejected under 35 U.S.C. § 102 as being anticipated by Zhu (US 5,709,396; US 2004/0051529) or Kuhara (US 2002/0021128).

Claims 6-9 stand rejected under 35 U.S.C. § 102 as being anticipated by Kuhara.

**The Present Amendment
Should Be Entered**

The applicant proposes amending the claims in the manner suggested by the Examiner when she telephoned a few weeks ago. Because the claims are amended to implement the Examiner's suggested changes, it is submitted that the present amendment should be entered.

Further, claim 1 was not amended in the preceding amendment. Because claim 1 was not amended, the new ground of rejection of claim 1 based on Kuhara was not necessitated by the prior amendment. The Zhu reference, for the reasons set forth below, is not relevant to the present claims. Although the Examiner continues to assert Zhu, it is submitted that the continued assertion of Zhu does not justify the making of the February Office Action Final.

Third, for the reasons set forth below, it is submitted that the application is now in condition for allowance and that the reasons for allowance are not directly linked to the present amendments.

**The Claims Distinguish Patentably
Over the References of Record**

Claim 1 calls for fold-over artifacts due to undersampling to be unfolded by means of the sensitivity pattern of the receiver antenna. Zhu does not disclose an imaging technique such as SENSE or SMASH which generates fold-over artifacts, much less unfolding such artifacts by means of the sensitivity pattern of the receiver

antenna. Accordingly, **claim 1 and claims 2, 3, 4, 5, 14, 15, and 16 dependent therefrom** are not anticipated by Zhu.

Kuhara, in paragraph [0118], references a fast imaging technique with a reduced number of encoding steps which results in image aliasing which are decomposed through post-calculation. There is no statement in paragraph [0118] or other paragraphs of Kuhara whether these artifacts are unfolded by means of the sensitivity patterns of the receiver antennas. Accordingly, **claim 1 and claims 2, 3, 4, 5, 14, 15, and 16 dependent therefrom** are not anticipated by Kuhara.

Dependent **claim 2**, among other limitations, calls for unfolding fold-over artifacts due the undersampling using (1) the sensitivity patterns of the receiver antennae, and (2) at least one of: the excitation profile, the magnetization and presaturation profile, and the frequency-response pattern of the receiver. Neither Zhu nor Kuhara disclose such an unfolding operation. Accordingly, it is submitted that neither Zhu nor Kuhara anticipate **claim 2**.

Dependent **claim 3** further adds that the fold-over artifacts are unfolded by means of the magnetization and presaturation profile. Again, both Zhu and Kuhara are silent regarding such an unfolding process. Accordingly, it submitted that **claim 3** is not anticipated by Zhu or Kuhara.

Dependent **claim 4** calls for the fold-over artifacts to be unfolded by means of the frequency-response pattern of the receiver. Neither Zhu nor Kuhara disclose unfolding by means of the frequency-response pattern of the receiver. Accordingly, it is submitted that **claim 4** is not anticipated by Zhu or Kuhara.

Claim 6, among other limitations, calls for undersampling from the restriction region with at least one global receiver antenna disposed in a fixed relationship to the main magnet system and a plurality of local receiver antennae disposed in a fixed relationship to the patient. Kuhara does not disclose receiving with both global and local receiver antennae.

Moreover, claim 6 calls for unfolding fold-over artifacts using sensitivity patterns of the global and the local receiver antennae. Kuhara does not disclose an unfolding operation which uses the sensitivity patterns of the global and local receiver antennae. Accordingly, it is submitted that **claim 6 and claims 7-9 dependent therefrom** are not anticipated by Kuhara.

Dependent **claim 7** calls for a reference scan. Kuhara does not describe a reference scan. Accordingly, **claims 7-9** are not anticipated by Kuhara.

Dependent **claim 8** gives details of the reference scan, which details are not found in Kuhara. Dependent **claim 9** provides details of the scanning and sensitivity profile calculation, which details are not disclosed by Kuhara. Accordingly, it is submitted that **claims 8 and 9** are not anticipated by Kuhara.

Claim 10 calls for fold-over artifacts to be unfolded by means of the sensitivity pattern of the receiver antenna. Neither Zhu nor Kuhara disclose such an unfolding operation.

Moreover, claim 10 calls for the data sampled largely offset from the center of the main magnet to be folded-in on the data in the center of the main magnet. Such a folding pattern is not disclosed by either Zhu or Kuhara. Accordingly, it is submitted that **claim 10** is not anticipated by Zhu or Kuhara.

Claim 11, among other limitations, calls for unfolding the fold-over artifacts by means of the sensitivity patterns of the receiver antennae and at least one of the excitation profile, the magnetization and presaturation profile, and the frequency response pattern of the receiver. Neither Zhu nor Kuhara discloses such an unfolding operation. Accordingly, it is submitted that **claim 11** is not anticipated by Zhu or Kuhara.

Claim 12, among other limitations, calls for at least one global receiver antenna and a plurality of local receiver antennae. Claim 12 further calls for a means for adapting the frequency profile of the transmitter antenna and the frequency profile of the receiver antennae to the position of the continuously moving table relative to a reference point. Further, claim 12 calls for unfolding fold-over artifacts by means of the sensitivity pattern of the receiver antennae. Because these steps are not disclosed in Zhu or Kuhara, it is submitted that **claim 12** is not anticipated by Zhu or Kuhara.

Claim 13 calls for unfolding fold-over artifacts with the sensitivity patterns of the receiver antennas and at least one of the excitation profile, the magnetization and presaturation profile, and the frequency-response pattern of the receiver. Neither Zhu nor Kuhara disclose such an unfolding operation. Accordingly, it is submitted that **claim 13** is not anticipated by Zhu.

**Kuhara Does Not Provide an Enabling Disclosure
of Parallel Imaging**

Paragraph [0118] of Kuhara refers to a fast imaging technique, but provides no enabling disclosure as to how to incorporate such imaging technique into the otherwise described system. Indeed, from a reading of Kuhara, it appears that the author of Kuhara did not understand the referenced imaging technique nor did the author understand how to incorporate the referenced technique into the otherwise disclosed hardware. It is submitted that an ambiguous and potentially misleading reference to an imaging technique that might be used is not sufficient to place the combination of the referenced technique and the disclosed hardware in the possession of the reader. Accordingly, it is submitted that Kuhara does not provide an enabling disclosure.

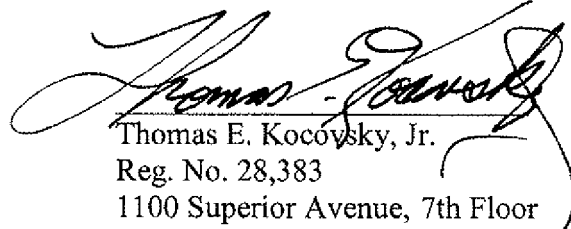
CONCLUSION

For the reasons set forth above, it is submitted that claims 1-16 are not anticipated by the references of record and are otherwise in condition for allowance. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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